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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,635	03/21/2005	Marc Laverdiere	2002-29-US	5906

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EXAMINER	
LEE, KEVIN L	

ART UNIT	PAPER NUMBER
3753	

MAIL DATE	DELIVERY MODE
07/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/520,635	LAVERDIERE ET AL.	
	Examiner	Art Unit	
	KEVIN L. LEE	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-15 and 53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11,12,14 and 53* is/are allowed.

6)☒ Claim(s) *1, 3-10, 13 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The reply filed April 11, 2008 has been reviewed and considered by the examiner. Applicant's arguments with respect to claims 1, 3-10 and 13-15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-5, 7-10, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al (U.S. Patent No. 6,539,968) in view of Vavra et al (U.S. Patent No. 5,303,731) and Inayama et al (U.S. Patent No. 6,584,999). The patent to White et al discloses a fluid flow control apparatus comprising a proportional fluid control valve (40) having a fluid inlet and a fluid outlet; a solenoid type proportional control device (430 in communication with the proportional fluid control valve for modulating the proportional fluid control valve; a frictional flow element (56) having a frictional flow element fluid inlet in fluid communication with the fluid outlet of the proportional fluid control valve and having a frictional flow element creating a pressure drop between the frictional flow element fluid inlet and frictional flow element fluid outlet. The frictional flow element lacks comprising a helical coil. The patent to Vavra et al teaches providing a frictional flow element (14) comprising a helical coil (62) to produce

a pressure drop in the fluid traveling through the flow element; see col. 2, lines 28-36 and col. 4, lines 26-62. In view of the teaching of Vavra et al, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of White et al to include providing a frictional flow element comprising a helical coil to provide a compact means of producing a pressure drop in the fluid traveling through the flow element.

The apparatus of White et al also includes a controller (70) in communication with means (46, 48) for measuring the pressure drop and with the solenoid type proportional control device (43) for controlling the flow of fluid through the proportional fluid control valve in response to the measured pressure drop. The patent to White et al lacks explicitly disclosing the solenoid type proportional control device to comprise a pneumatic valve. The patent to Inayama et al teaches the use of a pneumatic proportional control valve (76, 78) for controlling a proportional fluid control valve for the purpose of providing a self-contained flow control device. In view of the teaching of Inayama et al, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have utilized the pneumatic proportional control valve taught by Inayama et al in place of the solenoid type proportional control valve of White et al for the purpose of providing a self-contained flow control device.

The combination of White et al, Vavra et al and Inayama et al necessarily performs the method recited in claims 9, 10, 13 and 14.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of White et al in view of Vavra et al and Inayama et al as applied to claims 1-5, 7-10, 13 and 14 above, and further in view of McLoughlin et al (U.S. Patent No. 6,348,098). The combination of White et al in view of Vavra et al and Inayama et al as set forth above lacks having a suckback valve in pneumatic communication with the pneumatic proportional control valve. The patent to McLoughlin et al discloses a flow arrangement comprising a suckback valve (10) in pneumatic communication with a pneumatic proportional control valve for the purpose of providing a precise and reproducible dispensing of the fluid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the combination of White et al in view of Vavra et al and Inayama et al a suckback valve in pneumatic communication with the pneumatic proportional control valve for the purpose of providing a precise and reproducible dispensing of the fluid.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the White et al in view of Vavra et al and Inayama et al as applied to claims 1-5, 7-10, 13 and 14 above and further in view of Balazy et al (U.S. Patent No. 6,152,162). The combination of White et al in view of Vavra et al and Inayama et al as set forth above discloses the claimed invention with the exception of explicitly disclosing a means for regulating the fluid pressure of the fluid entering the first fluid inlet. The patent to Balazy et al discloses a means (20) for the purpose of regulating the fluid pressure of the fluid entering the first fluid inlet. In view of the teaching of Balazy et al, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to have provided the combination of White et al in view of Vavra et al and Inayama et al a means for regulating the fluid pressure of the fluid entering the first fluid inlet.

Allowable Subject Matter

Claims 11, 12, 14 and 53 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN L. LEE whose telephone number is (571) 272-4915. The examiner can normally be reached on MONDAY-THURSDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GREGORY HUSON can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN L LEE/
Primary Examiner, Art Unit 3753